

REMARKS

Claims 1-30 and 32-34 are pending and stand rejected.

Applicant has added a new claim 1, incorporating the limitations of claims 33 and 34. Said amendment is supported in the original specification at page 6, line 27. Claims 33 and 34 have been cancelled.

35 U.S.C. §112 - New Matter

Claims 33-34 are rejected under 35 U.S.C. §112 first paragraph as containing subject matter which was not described in the specification. Specifically, claims 33 and 34 contain a minimum, but no maximum thickness. Claim 1 (including the limitations of cancelled claims 33 and 34) have been amended to include the upper limit of 100 mm.

35 U.S.C. §102

Claims 1- 21, 23-24, 26-30 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kito et al. (US 5,585,425). The Kito reference fails to teach every element of Applicant's claims, and therefore fails to present a *prima facie* case of anticipation over Applicant's amended claims. Specifically, the Kito reference fails to describe an article having two or more layers having a principle color, and wherein the observed color of said exposed light transmitting layer, when viewed along the edge appears different than its principal color, and wherein each layer of said article has a thickness of from 0.1 to 100 mm, wherein at least one light transmitting layer has a thickness of from 1 to 100 mm.

Applicant's amended claims require that each layer be greater than 0.1 mm (greater than 100 microns). The Kito thermochromic coating layer is in the range of 2 – 100 microns (Col. 12, line 21). The ink layers in the Examples are in the 15-20 micron range.

The undercoating layer, as a coating would also be expected to have a typical coating thickness in the 2-50 micron range. Applicant's layers are all greater than 0.1 mm thick, while the Kito layers are 0.1 mm or less – thus the ranges do not overlap – and there is no anticipation. The thermochromic coating and undercoatings are too thin to have visible

edges capable of exhibiting any noticeable color change based on angle of view – even if they were colored.

The substrate layer of Kito has a thickness in examples 1-6 of a 100 micron film. The substrate in Examples 7-11 is most likely thicker, but always “transparent and colorless”. Applicant’s claims require that the layers each have a principle color. The Colorless substrates of Kito do not have the principal color required by Applicant’s claims.

35 U.S.C. §103

Claims 33 and 34 1- 21, 23-24, 26-30 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kito et al. (US 5,585,425). The Kito reference fails to teach or suggest every element of Applicant’s claims, and therefore fails to present a *prima facie* case of anticipation.

The Examiner contends that “thickness is an optimizable feature”. Applicants disagree. According to the MPEP 2144.05, only result-effective variables can be optimized. The Kito reference fails to recognize Applicant’s angular multi-chromatic characteristics or geometric multi-chromatic characteristics, and thus such effects were not recognized as result effect by Kito, and this un-recognized effect cannot be optimized.

The Kito reference is to a thermochromic opaque/transparent composition, which is article or film that can be painted with a thermochromatic coating that may be colored. Kito states: “The reversible thermochromatic opaque/transparent composition of the present invention...undergoes a basic change of being colored and opaque below said low trigger temperature, and colorless and transparent above said high trigger temperature.” Col 3, lines 39-44.

Thus the Kito reference teaches a coating that is:

1. Thin (2-100 micron – Col. 12, line 12) - below Applicant’s claims. As a coating, thickness is related to cost and processing, and would be as thin as possible. That is why the Kito examples are at 15 and 20 microns. The 2-100 micron statement, and 15-20 micron examples of Kito would not motivate one of ordinary skill in the art to practice Applicant’s claimed 0.1 to 100 mm thickness of each layer – and instead definitely teach away from Applicant’s claims (as amended)

2. Either opaque (can be colored) or transparent and colorless – dependent on the temperature. If the coating layer is opaque and colored it is not light transmitting. If it is heated it becomes colorless and transparent. Neither of the states taught by Kito: colored/opaque or colorless/transparent, falls within Applicant's claimed "layers having a principal color ... light transmitting layer" – even if the coating layer did fall within Applicant's claimed thickness – which it does not.

Further, the substrate layer of Kito is described in Col. 13, lines 14 – 27. It can be either transparent or opaque. Transparent substrates are then described by chemistry – with no mention of any coloring. Opaque or semi-transparent substrates are then described by chemistry, with mention of "above mentioned resin colored or opacified with pigment". Note: in Kito only the opaque or semi-transparent substrate is mentioned as possibly having a color. One of skill in the art would not be motivated by a teaching of non-colored transparent substrates, or colored opaque substrates to use a colored transparent substrate. Since the coloring of opaque substrates only is not recognized as a result-effective variable, it is not subject to routine experimentation. The Kito reference could have mentioned coloring of a transparent substrate, had that been anticipated, but instead the reference specifically omits all references to color for a transparent substrate, but specifically mentions color for an opaque substrate.

Thus the Kito explicitly reference teaches:

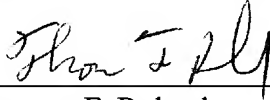
- a) a thin (2-100 micron) thermochromatic coating that is either opaque/colored at low temperature, changing to a colorless/transparent coating above a certain temperature. There is no teaching or suggestion of a colored transparent coating, or one that is greater than 0.1 mm thick.
- b) An undercoating that is transparent (no mention of any coloring).
- c) A substrate that is either transparent (no mention of color), or is opaque and colored, or non-colored.

Therefore, the Kito reference fails to teach or suggest several of Applicant's claim limitations.

Conclusion

The reference cited, fails to teach all of Applicant's claim elements, and therefore fail to present a *prima facie* case of anticipation over Applicant's claims. For the above reasons the present claims are believed by the Applicant to be novel and unobvious over the prior art, thus the claims herein should be allowable to the Applicant. Accordingly, reconsideration and allowance are requested.

Respectfully submitted,



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